

What is claimed is:

1. A tension sensing device comprising:

a bracket adapted to be connected to a seat;

5 a moveable bar retained by the bracket;

a sensor mounted between the bracket and the moveable bar, the sensor adapted to provide an electrical signal that is indicative of a magnitude of tension on the moveable bar; and

a spring located between the bracket and the moveable bar, the spring

10 biasing the moveable bar away from the bracket.

2. The tension sensing device according to claim 1 further comprising:

a housing mounted between the bracket and the moveable bar.

15 3. The tension sensing device according to claim 2, wherein the sensor is a switch.

4. The tension sensing device according to claim 3, wherein the switch is mounted between the housing and the bracket, the moveable bar operable to close

20 and open the switch.

5. The tension sensing device according to claim 4, wherein the housing is adapted to engage the bracket to provide overload protection for the switch.

6. The tension sensing device according to claim 1, wherein the moveable bar

5 has a pair of spaced apart arms, the arms each having an end, the bracket having a pair of notches, the ends of the arms being retained in the notches, the notches supporting the ends of the arms such that the bar can be rotated relative to the bracket.

10 7. The tension sensing device according to claim 6, wherein a housing has a pair of grooves, the grooves adapted to engage the arms such that the housing is retained by the arms.

8. The tension sensing device according to claim 6, wherein the moveable bar
15 has a cross member extending between the arms.

9. The tension sensing device according to claim 1, wherein a wire harness is connected to the sensor.

10. A tension sensing device for attachment to a seat member, comprising:
- a bracket adapted to be secured to the seat member;
 - a bar retained by the bracket, the bar being rotatable with respect to the bracket ;
- 5 a spring located between the bracket and the bar, the spring biasing the bar away from the bracket; and
- a switch mounted between the bracket and the bar, the bar moving to actuate the switch when tension above a first magnitude is applied to the bar.
- 10 11. The tension sensing device according to claim 10, wherein the switch is open when tension less than the first magnitude is applied to the bar.
12. The tension sensing device according to claim 10, wherein the tension sensor is substantially insensitive to the direction of tension on the bar.
- 15 13. The tension sensing device according to claim 10, wherein the bar wraps around the seat member.
14. The tension sensing device according to claim 10, wherein a housing is
- 20 mounted between the bracket and the bar.

15. The tension sensing device according to claim 14, wherein the switch is mounted to the housing.

16. The tension sensing device according to claim 15, wherein the housing is
5 adapted to engage the bracket to provide overload protection for the switch.

17. A tension sensing device for attachment to a seat member, comprising:
a bracket for securing to the seat member;
an anchor bar retained by the bracket, the bar being moveable with respect to
10 the bracket when tension is placed on the bar;
a spring located between the bracket and the bar, the spring biasing the bar
away from the bracket;
a switch mounted between the bracket and the bar; and
the anchor bar moveable between a first and second position such that the
15 switch is actuated.

18. The tension sensing device according to claim 17, wherein when the anchor bar is in the second position overload protection for the switch is provided.

20 19. The tension sensing device according to claim 17, wherein the anchor bar is connectable with a child seat.

20. The tension sensing device according to claim 19, wherein the switch is operable to detect the presence or absence of the child seat.

21. A tension sensing device comprising:

- 5 a bracket adapted to be secured to a seat;
- an anchor bar pivotally retained by the bracket, the anchor bar connectable with an object that provides tension on the anchor bar;
- a sensor mounted between the bracket and the anchor bar, the sensor being actuated by the pivoting anchor bar, the sensor adapted to indicate a magnitude of
- 10 tension on the anchor bar; and
- a spring located between the bracket and the anchor bar, the spring biasing the anchor bar away from the bracket.

22. The tension sensing device according to claim 21, wherein the sensor detects

15 the magnitude of tension that is greater than a first pre-defined magnitude, the spring determining the first pre-defined magnitude.

23. The tension sensing device according to claim 21, wherein the sensor is selected from the group consisting of:

- a) switches;
- b) hall effect devices;

5 c) pressure sensors; and

- d) variable resistors.

24. The tension sensing device according to claim 21, wherein the sensor is mounted in a housing.